WT 07-121

## Before the Federal Communications Commission Washington, DC 20554

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In the Matter of

Wireless Strategies, Inc. Applications for Authorization	)	File Nos. 0002925444
To Operate Common Carrier Fixed Point-to-Point	)	0002925448
Microwave Facilities in Pennsylvania and New Jersey)	)	0002925450

# REPLY COMMENTS TO VERIZON'S PETITION TO DENY OR, ALTERNATELY, TO IMPOSE CONDITIONS, DATED APRIL 6, 2007

- 1. In Verizon's petition they state: "If Wireless Strategies' proposed facilities are operated strictly in accordance with the technical parameters specified in the Application, Verizon perceives no interference problems to its existing operations and believes the proposed facilities have been successfully coordinated."
- 2. Wireless Strategies Inc. (WSI) will, of course, operate the facilities strictly in accordance with the technical parameters specified in the Application and will adhere to all FCC regulations in the present and future. Thus, there are no grounds on which to deny, or impose conditions on WSI's Applications. Therefore, WSI requests that the Commission dismiss Verizon's petition.
- 3. Having found no fault with WSI's Applications, Verizon then turns to WSI's request for a Declaratory Ruling. Verizon, wrongly concludes that WSI is asking the Commission to rule that a Fixed Services licensee is permitted to simultaneously coordinate multiple links whose transmitter elements collectively **do not** comply with the Commission's antenna standards and frequency coordination procedures. This false conclusion is the opposite of what is clearly stated in the Request for a Declaratory Ruling, which is:

"...to issue a declaratory ruling that a Fixed Services licensee is permitted to simultaneously coordinate multiple links whose transmitter elements collectively **comply** with the Commission's antenna standards and frequency coordination procedures."

4. Further, WSI believes that Verizon's statements in the matter of WSI's request for a Declaratory Ruling should have been filed separately from statements in the matter of WSI's Applications. However, the attached Appendix gives detailed explanations of why Verizon's speculations about WSI's intentions and the operation of fixed microwave antennas with distributed radiating elements are wrong.

Respectfully submitted,

Wireless Strategies Inc.

By:\_

Michael Mulcay, Chairman

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#### APPENDIX

Made a part of Wireless Strategies Inc.'s Reply Comments to Verizon's Petition to Deny or, Alternatively to Impose Conditions, dated April 6, 2007

#### INTRODUCTION

- 1. Verizon's assumptions and subsequent objections to WSI's Applications for a license to operate fixed point-to-point microwave facilities are categorically wrong because they don't understand WSI's business plan and marketing strategies. The details are, of course, proprietary, and have not been released. Since Verizon is objecting to what they do not understand, WSI will clarify WHY Verizon is so wrong in their assumptions and objections.
- 2. WSI's business plan calls for a TWO-PHASE roll-out. Phase 1, uses certified antennas and transceivers employing last century technology. The Applications are part of Phase 1. In Phase 2, WSI plans to utilize emerging technologies and will amend any license(s) as required by the Rules. One such technology is the subject of WSI's Request for a Declaratory Ruling. Verizon's false assumptions come from applying future Phase 2 activities to a Phase 1 Application. But how were they to know? By Verizon asking WSI if their assumptions were correct.
- WSI would welcome the FCC issuing a Public Notice requesting comments on WSI's Request for a Declaratory Ruling.

### POINT-BY-POINT RESPONSE

4. Verizon initially states in its petition: "If operated as described in Wireless Strategies' pending Request for a Declaratory Ruling and on its website, the facilities proposed in these Applications could cause substantial interference to Verizon's neighboring microwave facilities." Verizon later states: "If Wireless Strategies' proposed facilities are operated strictly in accordance with the technical parameters specified in the Application, Verizon perceives no interference problems to its existing operations and believes the proposed facilities have been successfully coordinated."

- 5. WSI intends to operate the facilities strictly in accordance with the technical parameters specified in the Application.
- 6. If the Commission issues a ruling confirming that antennas with distributed radiating elements that meet all present regulations can be used, WSI plans to use this innovative technology to increase the effective use of the licensed spectrum around the paths and will amend the license(s) as required by the Rules.
- 7. Verizon states that "...the use of DREs results in a very different radiation pattern and thus different interference potential..." False. An antenna with DREs must meet the Std A or B requirements and will not have a different interference potential than any other Std A or B antenna. Verizon arrived at its erroneous conclusions because it skipped the fact-gathering stage and went straight to accusations and assumptions. Unlike others, they never contacted WSI to ask for further explanation of the proposed equipment and operations. WSI has always welcomed dialog and peer review, direct and at industry conferences.
- 8. Verizon quotes from WSI's request for a declaratory ruling: "spectrum in areas represented by transmitter side lobes is presently unused by the licensee" Verizon states that this is false. The facts are that Verizon is the licensee of the microwave facility in Philadelphia (call sign WLC568) and they have <u>not</u> put their side lobe radiation to

productive use.

- 9. Verizon then goes on to say: "Verizon is unable to assess the full potential impact of DREs on its facilities because Wireless Strategies has failed to provide any specifics on the technical details of such deployments." This is false.
- 10. In its request WSI clearly states: "Wireless Strategies seeks a ruling that a licensee may use antennas having distributed elements to operate links, in addition to the main link, subject to the conditions that (1) all radiating elements together conform to the applicable antenna radiation pattern in Section 101.115, and (2) all links are successfully coordinated." In its application WSI submitted all the information detailed by Verizon in its petition, namely:

Transmitting station coordinates ...

Transmitting equipment, its stability, effective isotropic radiated power, emission designator, and type of modulation.

Transmitting antenna(s), model, gain, and, if required, a radiation pattern provided or certified by the manufacturer.

Transmitting antenna center line height(s) above ground level and ground elevation above sea level...

Receiving station coordinates ...

Receiving antenna(s), model, gain, and, if required, a radiation pattern provided or certified by the manufacturer.

Receiving antenna center line height(s) above ground level and ground elevation above sea level.

Path azimuth and distance.

WSI fully agrees that the above information is required by an applicant, or the applicant's spectrum management company, to conduct an analysis to assure that signals radiated

from a proposed path will not cause harmful interference to existing paths (or to earth stations, in shared bands) and to determine potential incoming interference from existing paths and earth stations. WSI is also aware that this information is critical for the efficient use of spectrum when deploying equipment designed with last century technology and for the more efficient use of spectrum made possible by emerging technologies and network designs.

- 11. Verizon seems unaware of the fact that the Rules do not specify the location of a path's transceiver or the location and RPE of an antenna's radiating element(s). The reason the location and RPE of the antennas radiating elements present no coordination problems is because the interference level "I," used in the calculation of the ratios C/I or T/I at the input of a victim receiver, is the totality of the interference from the source antenna system. This applies to any type of path coordination using directional antennas, including parabolic dish antennas, antennas with multiple arrays and antennas with distributed elements.
- 12. Verizon speculates that WSI's apparent plan is to "...utilize equipment different from what its Applications propose..." This speculation is false. WSI intends to utilize equipment exactly as proposed. As stated earlier, if the Commission issues a ruling confirming that antennas with distributed radiating elements that meet all present regulations can be used, WSI plans to use this innovative technology to increase the effective use of the licensed spectrum around the paths and will amend the license(s) as required by the Rules.
- 13. Verizon states: "Wireless Strategies is effectively proposing to be licensed for a geographic area." False. WSI is proposing to make more effective use of licensed Point-

to-Point spectrum by putting wasted sidelobe radiation to productive use. Not putting the wasted spectrum to productive use would be contrary to the public interest and the goals of the Commission, which has consistently promoted the national policy set forth in Section 257 of the Communications Act by enabling industry operators and equipment providers to maximize the efficient use of spectrum and facilitate innovative services and product offerings.